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## RAW SEQUENCE LISTING

DATE: 10/04/2001

PATENT APPLICATION: US/09/885,478

TIME: 17:56:10

Input Set : A:\PTO\_VSK.txt

Output Set: N:\CRF3\10042001\I885478.raw

ENTERED

3 <110> APPLICANT: SALON, JOHN A  
 4 LAZ, THOMAS M  
 5 NAGORNY, RAISA  
 6 WILSON, AMY E  
 8 <120> TITLE OF INVENTION: DNA ENCODING A HUMAN MELANIN CONCENTRATING HORMONE RECEPTOR  
 (MCH1) AND  
 9 USES THEREOF  
 11 <130> FILE REFERENCE: 1795/57453-A-PCT-US  
 13 <140> CURRENT APPLICATION NUMBER: 09/885,478  
 C--> 14 <141> CURRENT FILING DATE: 2001-09-24  
 16 <150> PRIOR APPLICATION NUMBER: PCT/US99/31169  
 17 <151> PRIOR FILING DATE: 1999-12-30  
 19 <160> NUMBER OF SEQ ID NOS: 28  
 21 <170> SOFTWARE: PatentIn version 3.1  
 23 <210> SEQ ID NO: 1  
 24 <211> LENGTH: 1269  
 25 <212> TYPE: DNA  
 26 <213> ORGANISM: HOMO SAPIENS  
 28 <400> SEQUENCE: 1  
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 31 ggctgccagg ctacggagga agacccctt cccgactgcg gggcttgcgc tccgggacaa 120  
 33 ggtggcaggc gctggaggct gccgcagcct gcgtgggtgg aggggagctc agctcggttg 180  
 35 tgggagcagc cgacgggcac tggctggatg gacctggaag cctcgtctgt gccactggt 240  
 37 cccaatgccca gcaacacctc tgatggcccc gataacctca cttcagcagg atcacctcct 300  
 39 cgcacgggga gcatctccta catcaacatc atcatgcctt cgggtgttcgg caccatctgc 360  
 41 ctctctggga tcatcgggaa ctccacggtc atcttcgcgg tcgtgaagaa gtccaagctg 420  
 43 cactggtgca acaacgtccc cgacatcttc atcatcaacc tctcggtagt agatctcctc 480  
 45 tttctcctgg gcatgccctt catgatccac cagctcatgg gcaatggggt gtggcacttt 540  
 47 ggggagacca tgtgcaccct catcacggcc atggatgcca atagtcagtt caccagcacc 600  
 49 tacatcctga ccgccatggc cattgaccgc tacctggcca ctgtccaccc catctcttcc 660  
 51 acgaagttcc ggaagccctc tgtggccacc ctggtgatct gcctcctgtg ggccctctcc 720  
 53 ttcatcagca tcaacctgtg gtggtgtgat gccagactca tccccttccc aggaggtgca 780  
 55 gtgggctgcg gcatacgctt gcccaaccca gacactgacc tctactggtt caccctgtac 840  
 57 cagtttttcc tggcctttgc cctgcctttt gtggtcatca cagccgcata cgtgaggatc 900  
 59 ctgcagcgca tgacgtcctc agtggccccc gcctcccagc gcagcatccg gctgcggaca 960  
 61 aagagggtga cccgcacagc catcgccatc tgtctggtct tctttgtgtg ctgggcaccc 1020  
 63 tactatgtgc tacagctgac ccagttgtcc atcagccgcc cgacctcac ctttgtctac 1080  
 65 ttatacaatg cggccatcag cttgggctat gccaacagct gcctcaaccc ctttgtgtac 1140  
 67 atcgtgtctc gtgagacgtt ccgcaaacgc ttggtcctgt cgggtgaagcc tgcagcccag 1200  
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 75 <211> LENGTH: 422  
 76 <212> TYPE: PRT  
 77 <213> ORGANISM: HOMO SAPIENS  
 79 <400> SEQUENCE: 2  
 81 Met Ser Val Gly Ala Met Lys Lys Gly Val Gly Arg Ala Val Gly Leu  
 82 1 5 10 15

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85 Gly Gly Gly Ser Gly Cys Gln Ala Thr Glu Glu Asp Pro Leu Pro Asp
86                20                25                30
89 Cys Gly Ala Cys Ala Pro Gly Gln Gly Gly Arg Arg Trp Arg Leu Pro
90                35                40                45
93 Gln Pro Ala Trp Val Glu Gly Ser Ser Ala Arg Leu Trp Glu Gln Ala
94                50                55                60
97 Thr Gly Thr Gly Trp Met Asp Leu Glu Ala Ser Leu Leu Pro Thr Gly
98 65                70                75                80
101 Pro Asn Ala Ser Asn Thr Ser Asp Gly Pro Asp Asn Leu Thr Ser Ala
102                85                90                95
105 Gly Ser Pro Pro Arg Thr Gly Ser Ile Ser Tyr Ile Asn Ile Ile Met
106                100                105                110
109 Pro Ser Val Phe Gly Thr Ile Cys Leu Leu Gly Ile Ile Gly Asn Ser
110                115                120                125
113 Thr Val Ile Phe Ala Val Val Lys Lys Ser Lys Leu His Trp Cys Asn
114                130                135                140
117 Asn Val Pro Asp Ile Phe Ile Ile Asn Leu Ser Val Val Asp Leu Leu
118 145                150                155                160
121 Phe Leu Leu Gly Met Pro Phe Met Ile His Gln Leu Met Gly Asn Gly
122                165                170                175
125 Val Trp His Phe Gly Glu Thr Met Cys Thr Leu Ile Thr Ala Met Asp
126                180                185                190
129 Ala Asn Ser Gln Phe Thr Ser Thr Tyr Ile Leu Thr Ala Met Ala Ile
130                195                200                205
133 Asp Arg Tyr Leu Ala Thr Val His Pro Ile Ser Ser Thr Lys Phe Arg
134                210                215                220
137 Lys Pro Ser Val Ala Thr Leu Val Ile Cys Leu Leu Trp Ala Leu Ser
138 225                230                235                240
141 Phe Ile Ser Ile Thr Pro Val Trp Leu Tyr Ala Arg Leu Ile Pro Phe
142                245                250                255
145 Pro Gly Gly Ala Val Gly Cys Gly Ile Arg Leu Pro Asn Pro Asp Thr
146                260                265                270
149 Asp Leu Tyr Trp Phe Thr Leu Tyr Gln Phe Phe Leu Ala Phe Ala Leu
150                275                280                285
153 Pro Phe Val Val Ile Thr Ala Ala Tyr Val Arg Ile Leu Gln Arg Met
154                290                295                300
157 Thr Ser Ser Val Ala Pro Ala Ser Gln Arg Ser Ile Arg Leu Arg Thr
158 305                310                315                320
161 Lys Arg Val Thr Arg Thr Ala Ile Ala Ile Cys Leu Val Phe Phe Val
162                325                330                335
165 Cys Trp Ala Pro Tyr Tyr Val Leu Gln Leu Thr Gln Leu Ser Ile Ser
166                340                345                350
169 Arg Pro Thr Leu Thr Phe Val Tyr Leu Tyr Asn Ala Ala Ile Ser Leu
170                355                360                365
173 Gly Tyr Ala Asn Ser Cys Leu Asn Pro Phe Val Tyr Ile Val Leu Cys
174                370                375                380
177 Glu Thr Phe Arg Lys Arg Leu Val Leu Ser Val Lys Pro Ala Ala Gln
178 385                390                395                400
181 Gly Gln Leu Arg Ala Val Ser Asn Ala Gln Thr Ala Asp Glu Glu Arg

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182                               405                               410                               415
185 Thr Glu Ser Lys Gly Thr
186                               420
189 <210> SEQ ID NO: 3
190 <211> LENGTH: 1214
191 <212> TYPE: DNA
192 <213> ORGANISM: RATTUS NORVEGICUS
194 <400> SEQUENCE: 3
195 gcaggcgacc tgcaccggct gcatggatct gcaaacctcg ttgctgtcca ctggcccca 60
197 tgccagcaac atctccgatg gccaggataa tctcacattg ccgggggtcac ctctctgcac 120
199 agggagtgtc tcctacatca acatcattat gccttccgtg tttggtacca tctgtctcct 180
201 gggcatcgtg ggaaactcca cggtcattct tgctgtggtg aagaagtcca agctacactg 240
203 gtgcagcaac gtccccgaca tcttcatcat caacctctct gtggtggatc tgctcttcct 300
205 gctgggcatg cctttcatga tccaccagct catggggaac ggcgtctggc actttgggga 360
207 aaccatgtgc accctcatca cagccatgga cgccaacagt cagttcacta gcacctacat 420
209 cctgactgcc atgaccattg accgctactt ggccaccgtc caccctatct cctccacca 480
211 gttccggaag ccctccatgg ccacctggt gatctgctc ctgtgggccc tctccttcat 540
213 cagtatcacc cctgtgtggc tctacgccag gctcattccc tccccagggg gtgctgtggg 600
215 ctgtggcatc cgctgccaa acccgacac tgacctctac tggttcactc tgtaccagtt 660
217 tttcctggcc tttgcccttc cgtttgtggt cattaccgcc gcatacgtga aaatactaca 720
219 gcgcatgacg tcttcgggtg cccagcctc ccaacgcagc atccggcttc ggacaaagag 780
221 ggtgaccogc acggccattg ccatctgtct ggtcttcttt gtgtgctggg caccctacta 840
223 tgtgtgcag ctgaccagc tgtccatcag ccgcccagacc ctcacgtttg tctacttgta 900
225 caacgcggcc atcagcttgg gctatgctaa cagctgcctg aaccctttg tgtacatagt 960
227 gctctgtgag acctttcgaa aacgcttggg gttgtcagtg aagcctgcag cccaggggca 1020
229 gctccgacg gtcagcaacg ctgagacagc tgatgaggag aggacagaaa gcaaaggcac 1080
231 ctgacaattc cccagtcgcc tccaagtcag gccaccccat caaacctggg ggagagatac 1140
233 tgagattaaa cccaaggcta ccctgggaga atgcagaggc tggaggctgg gggcttgtag 1200
235 caaccacatt ccac 1214
238 <210> SEQ ID NO: 4
239 <211> LENGTH: 353
240 <212> TYPE: PRT
241 <213> ORGANISM: RATTUS NORVEGICUS
243 <400> SEQUENCE: 4
245 Met Asp Leu Gln Thr Ser Leu Leu Ser Thr Gly Pro Asn Ala Ser Asn
246 1 5 10 15
249 Ile Ser Asp Gly Gln Asp Asn Leu Thr Leu Pro Gly Ser Pro Pro Arg
250 20 25 30
253 Thr Gly Ser Val Ser Tyr Ile Asn Ile Ile Met Pro Ser Val Phe Gly
254 35 40 45
257 Thr Ile Cys Leu Leu Gly Ile Val Gly Asn Ser Thr Val Ile Phe Ala
258 50 55 60
261 Val Val Lys Lys Ser Lys Leu His Trp Cys Ser Asn Val Pro Asp Ile
262 65 70 75 80
265 Phe Ile Ile Asn Leu Ser Val Val Asp Leu Leu Phe Leu Leu Gly Met
266 85 90 95
269 Pro Phe Met Ile His Gln Leu Met Gly Asn Gly Val Trp His Phe Gly
270 100 105 110
273 Glu Thr Met Cys Thr Leu Ile Thr Ala Met Asp Ala Asn Ser Gln Phe

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274          115          120          125
277 Thr Ser Thr Tyr Ile Leu Thr Ala Met Thr Ile Asp Arg Tyr Leu Ala
278          130          135          140
281 Thr Val His Pro Ile Ser Ser Thr Lys Phe Arg Lys Pro Ser Met Ala
282 145          150          155          160
285 Thr Leu Val Ile Cys Leu Leu Trp Ala Leu Ser Phe Ile Ser Ile Thr
286          165          170          175
289 Pro Val Trp Leu Tyr Ala Arg Leu Ile Pro Phe Pro Gly Gly Ala Val
290          180          185          190
293 Gly Cys Gly Ile Arg Leu Pro Asn Pro Asp Thr Asp Leu Tyr Trp Phe
294          195          200          205
297 Thr Leu Tyr Gln Phe Phe Leu Ala Phe Ala Leu Pro Phe Val Val Ile
298          210          215          220
301 Thr Ala Ala Tyr Val Lys Ile Leu Gln Arg Met Thr Ser Ser Val Ala
302 225          230          235          240
305 Pro Ala Ser Gln Arg Ser Ile Arg Leu Arg Thr Lys Arg Val Thr Arg
306          245          250          255
309 Thr Ala Ile Ala Ile Cys Leu Val Phe Phe Val Cys Trp Ala Pro Tyr
310          260          265          270
313 Tyr Val Leu Gln Leu Thr Gln Leu Ser Ile Ser Arg Pro Thr Leu Thr
314          275          280          285
317 Phe Val Tyr Leu Tyr Asn Ala Ala Ile Ser Leu Gly Tyr Ala Asn Ser
318          290          295          300
321 Cys Leu Asn Pro Phe Val Tyr Ile Val Leu Cys Glu Thr Phe Arg Lys
322 305          310          315          320
325 Arg Leu Val Leu Ser Val Lys Pro Ala Ala Gln Gly Gln Leu Arg Thr
326          325          330          335
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330          340          345          350
333 Thr
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338 <211> LENGTH: 26
339 <212> TYPE: DNA
340 <213> ORGANISM: ARTIFICIAL SEQUENCE
342 <220> FEATURE:
343 <223> OTHER INFORMATION: PRIMER
345 <400> SEQUENCE: 5
346 ggggaactcca cggatcatctt cgcggt
349 <210> SEQ ID NO: 6
350 <211> LENGTH: 26
351 <212> TYPE: DNA
352 <213> ORGANISM: ARTIFICIAL SEQUENCE
354 <220> FEATURE:
355 <223> OTHER INFORMATION: PRIMER
357 <400> SEQUENCE: 6
358 tagcgggtcaa tggccatggc gggtcag
361 <210> SEQ ID NO: 7
362 <211> LENGTH: 45
363 <212> TYPE: DNA

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364 <213> ORGANISM: ARTIFICIAL SEQUENCE
366 <220> FEATURE:
367 <223> OTHER INFORMATION: PROBE
369 <400> SEQUENCE: 7
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373 <210> SEQ ID NO: 8
374 <211> LENGTH: 25
375 <212> TYPE: DNA
376 <213> ORGANISM: ARTIFICIAL SEQUENCE
378 <220> FEATURE:
379 <223> OTHER INFORMATION: PRIMER
381 <400> SEQUENCE: 8
382 cttctaggcc tgtacggaag tgtta          25
385 <210> SEQ ID NO: 9
386 <211> LENGTH: 27
387 <212> TYPE: DNA
388 <213> ORGANISM: ARTIFICIAL SEQUENCE
390 <220> FEATURE:
391 <223> OTHER INFORMATION: PRIMER
393 <400> SEQUENCE: 9
394 gttgtggttt gtccaaactc atcaatg          27
397 <210> SEQ ID NO: 10
398 <211> LENGTH: 37
399 <212> TYPE: DNA
400 <213> ORGANISM: ARTIFICIAL SEQUENCE
402 <220> FEATURE:
403 <223> OTHER INFORMATION: PRIMER
405 <400> SEQUENCE: 10
406 cgcggatcca ttatgtctgc actccgaagg aaatttg          37
409 <210> SEQ ID NO: 11
410 <211> LENGTH: 38
411 <212> TYPE: DNA
412 <213> ORGANISM: ARTIFICIAL SEQUENCE
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417 <400> SEQUENCE: 11
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422 <211> LENGTH: 34
423 <212> TYPE: DNA
424 <213> ORGANISM: ARTIFICIAL SEQUENCE
426 <220> FEATURE:
427 <223> OTHER INFORMATION: PRIMER
429 <400> SEQUENCE: 12
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434 <211> LENGTH: 29
435 <212> TYPE: DNA
436 <213> ORGANISM: ARTIFICIAL SEQUENCE

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VERIFICATION SUMMARY

DATE: 10/04/2001

PATENT APPLICATION: US/09/885,478

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